

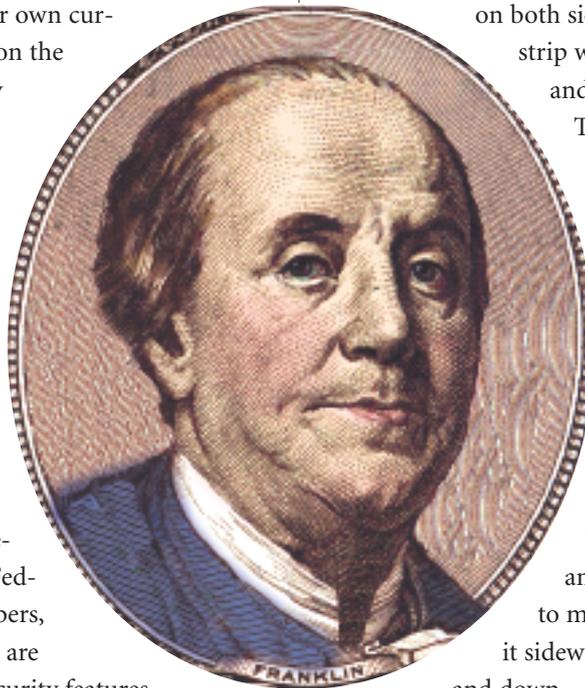
Ben Meets the 21st Century: Securing the C-Note

When Benjamin Franklin was printing money for a number of the colonies, he included the following line on the front of his 10 and 20 shilling notes: “To counterfeit is death.” Although it sounds like a pretty sinister warning, the punishment for counterfeiting in the colonies was nothing compared to back home in England, where knocking off your own currency could warrant vivisection the old-fashioned, noisy way—by drawing and quartering.

Ironically, today the note that bears Franklin’s likeness is the most frequently counterfeited of all American paper money abroad. And one of the methods commonly used is to bleach a \$5 bill and then reprint the image of a \$100 bill on the paper. Not all of the image is removed. Key elements like the Treasury and Federal Reserve seals, serial numbers, and “this note is legal tender” are often left on because these security features are in the same areas as for the hundred. The disappearing fives have led to an unscheduled redesign for the \$5 note and a new \$100 to follow later.

To keep a step ahead of the high-tech scanners and quality printers available to counterfeiters, the Mint has come up with a number of ingenious security measures that go beyond what the printers can do. The inks, for instance, now include a magnetic type

that is detectable in vending machines and a very expensive color-shifting ink that is impossible to imitate. The number 20 on the bottom right of a new \$20 will change its color from gold to green as you shift the light’s angle of reflection. And even the best color jet printers can’t recreate the images that appear as watermarks embedded in open fields, visible on both sides of the bill. There’s a plastic strip with the words USA, twenty, and a small flag microprinted. The strip is only visible when the bill is backlit.



The new \$100 bill is about one-third done and will be in circulation by the end of next year. A new security thread planned for it will cause shapeshifting. Not the sci-fi variety but the kind produced by microprinting. When you move the bill up and down, the image will appear to move sideways, and if you move it sideways, the image will move up and down.

Now that’s impressive, but the game isn’t going to be over until the Mint can do something like embed a chip carrying encrypted information that changes daily and is sent wirelessly to your wallet or purse from government satellites. In that case, though, the C-note might become the 110-note, with the user picking up the tech tab in a service arrangement. ■